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THE THREE ESSENTIALS FOR ACCIDENT PREVENTION

BY CRYSTAL EASTMAN,

Secretary New York Commission on Employers' Liability and Causes of Industrial Accidents, Unemployment and Lack of Farm Labor.

When I read in the newspaper the day after that terrible fire in Washington Place two weeks ago, that a relief fund had been started, that so and so and so and so had contributed so and so much, and the Red Cross had opened an office in the Metropolitan Building to "administer the fund," it turned my soul sick. When I read in the Bulletin of the New York Department of Labor, among particulars of fatal accidents in 1908 such records as this: "*Helper—flooring factory—age 18—clothing caught by set-screws in shafting; both arms and legs torn off; death ensued in five hours,*" my spirit revolts against all this benevolent talk about workingmen's insurance and compensation.

When great unforeseen disasters like the San Francisco earthquake come upon humanity by act of God, we can be thrilled and uplifted by the wave of generous giving which sweeps over the country—we can be comforted by contributing a little ourselves to aid the survivors. And when we are thinking of the deadly list of unpreventable work accidents—the blast furnace explosions, the electric shocks, the falls—it appeases our sense of right a little to realize that we are working away as hard as we can for a law which will assure a livelihood to the children of the victims. But when the strong young body of a free man is caught up by a little projecting set-screw, whirled round a shaft and battered to death, when we know that a set-screw can be countersunk at a trivial cost, when we know that the law of the state has prohibited projecting set-screws for many years, then who wants to talk about "three years' wages to the widow," and "shall it be paid in instalments, or in lump sum?" and "shall the workman contribute?" What we want is to put somebody in jail. And when the dead bodies of girls are found piled up against locked doors leading to the exits after a factory fire, when we know that locking such doors is a prevailing custom in such factories, and one that has continued in New York

City since those 145 lives were lost in the Triangle Waist Company fire, who wants to hear about a great relief fund? What we want is to start a revolution.

That is why I am glad that for once I have a change to talk about preventing accidents instead of about paying money to the victims.

If we undertake to stop this unnecessary killing and injuring of workers in the course of industry, we must pause and consider what are the essential weapons of our campaign.

The first thing we need is information, complete and accurate information about the accidents that are happening. It seems a tame thing to drop so suddenly from talk of revolutions to talk of statistics. But I believe in statistics just as firmly as I believe in revolutions. And what is more, I believe statistics are good stuff to start a revolution with. We must know how many men are killed and injured at their work every year in every state, not only in mines, railroads, and factories, but in all the building trades, in tunnelling, in engineering work of all kinds, in the loading and unloading of vessels, in water transportation, in teaming, and all the risky occupations of the city streets, in washing office windows, in agriculture, in the business of distributing gas and electricity, in the installation of telegraph and telephone lines. We must know not only how many are killed, but how many are killed in proportion to the number employed—the relative danger of the occupation. And about each of these accidents we must find out all we can, not only how it happened, and what machinery was involved, but what time of the day it happened; how long the injured man had been working; what were his regular working hours, etc. We must try to get every fact that will enable us to analyze accidents with a view to prevention.

How can we get such information? It is comparatively simple: require each employer engaged in any industrial pursuit to report every accident to his employees in the course of work. Minnesota has had such a law for a year, and under it has been able to record all but about 5 per cent of its industrial accidents. Many employers are not used to reporting, of course; but the Minnesota Labor Department secures a first notice of almost every accident through its newspaper clipping service, and, if in the course of a few days no notice comes in from the employer, they send him the clipping

with a polite notice of the law's requirement and a blank form for him to fill out. In this way, I am told, the backward employer is soon induced to fall in line and do his own reporting. As a result of its new accident reporting law, the Minnesota Labor Department has issued the first complete study of a year's industrial accidents I have ever seen. They found out for instance, that although mining, railroading and lumbering are the most dangerous industries of the state, contracting work follows close with 37 killed and 717 injured. In agriculture, 12 were killed and 51 injured; in the operations of public utilities corporations, 19 were killed and 207 injured; in teaming, 7 were killed and 17 injured; and so on. In New York since September, 1910, accidents in the building trades have been reported, and Illinois has a law requiring all accidents of employment causing death, or disability of more than 30 days, to be reported. But with these exceptions: I believe no state goes farther than to require accident reports for factories, mines and railroads. Minnesota's new law increased their accident reports from 1,590 in 1908 to 8,671 in 1910. If in Minnesota in one year 7,000 additional industrial accidents came to light under a complete reporting system, imagine what the number would be in Pennsylvania and New York, with their population six or seven times as great.

The New York State Employers' Liability Commission found that out of 554 fatal work accidents in the coroner's files, 325 had not been reported. And out of 451 injury cases taken to hospitals, only 56 had been reported to the Labor Department. These unreported accidents were not for the most part factory or railroad accidents which should have been reported, but accidents in other employments of which the state does not pretend to keep record.

Of course, in maintaining that complete accident reports are a first essential for accident prevention, I assume an intelligent use of them. We must have a grouping of accidents around the danger points in different industries and a very painstaking impartial intelligent study of their causes by the statistician with conclusions which will be of practical use to the inspector in his next rounds—not a mere cut and dried analysis of the accidents according to whether the employers reported them "due to negligence" or "inevitable." For this work we must have a statistician who looks upon his compilations not as an end in themselves, but always as a means to

prevention. A chief statistician with a great deal of common sense and a positive zeal for preventing accidents—that is what we must have in every labor department. And we must give him money enough to do his work.

I have always had an idea, too, that the law should provide for a certain publicity for these statistics. For instance, if every newspaper were required to print once a year the particulars of all fatal work accidents in the twelve months preceding, officially issued by the statistical bureau of the labor department, would it not help to keep us interested? And, if in addition certain simple and obvious statistical conclusions were printed; such as these for instance: In 1908, out of 257 industrial fatalities reported to this department, 26 were caused by men getting caught in belting, shafting, gearing, or other machinery, which could have been guarded so as to make the accident impossible; 21 were caused by men falling down elevator shafts or getting caught and crushed between the floor or walls and the elevator, accidents which would have been impossible on properly guarded elevators. Would not such statistics, published in the daily papers over the official signature of the Commissioner of Labor, help to keep the revolutionary spirit alive in us?

I have not looked into this matter yet, but I believe newspapers are required to publish certain matters of public concern, such as tax sales. Surely, these accident statistics are of equal public concern.

The second essential is a department for enforcing the accident prevention laws, commensurate in equipment and in power with the importance of its duty. The question whether accident prevention should be the exclusive duty of a special department or entrusted to the factory inspection bureau of the labor department, along with the enforcement of child labor laws, and the inspection of sanitary conditions, is one it seems to me which should be profoundly considered, but it is not a part of my plan to discuss it here. Clearly, whatever department is expected to enforce the laws for safeguarding life and limb, should be given money enough and power enough to do it.

In New York we have a fairly comprehensive law in respect to the guarding of machinery and other measures for safety in factories. The business of seeing that this law is complied with in the factories of the state, is entrusted to the chief factory inspector, who is paid \$3,000 a year, and his fifty-two deputies, who

are paid from \$1,000 to \$1,200 a year. But accident prevention is not the only business of this force. They must also enforce the laws in regard to child labor and hours of work, and sanitation and ventilation and lighting of factories.

So much for equipment. Now as to power. The violation of a safety provision in the labor law is a misdemeanor for which the employer may be fined from \$20 to \$50 for the first offense. The prosecution is conducted by the labor department in the lower courts. How does this work out? In 1909, there were seven prosecutions for violation of the safety laws, with this result: three suits were unsuccessful; in two, sentence was suspended; in two, employers were fined. The total fines amounted to \$35.

This small number of prosecutions might, of course, be co-existent with complete enforcement of the law. But it is not. The number of employers prosecuted seems to bear no relation to the number of employers who violate the laws with regard to accident prevention. For instance, in the same year during which there were seven prosecutions, there were among the 2,947 accidents reported to the department, 779 accidents classified as follows:

Accidents due to gearing	320
Accidents due to set-screws	337
Accidents due to shafting	73
Accidents due to belts and pulleys	49

779

We may fairly assume that most of these accidents resulted from violations of the statute which requires all "gearing, shafting, set-screws, belts and pulleys to be properly guarded."

In fact, the prosecutions are used only as a last resort to compel obstinate employers, who have been given three or four distinct warnings, to comply with the order of the department. And then, after the prosecution is commenced, and even after the employer has been convicted, if he can show that he has at last complied with the law, the judge suspends sentence.

Such is the equipment and authority of the executive department to which the state entrusts the enforcement of its accident prevention laws. The same description would serve, I believe, for almost any other state. In short, factory inspection for safety has hardly been seriously commenced. Reasonable safety provisions in

the labor law continue to be violated with impunity all over the state, while the records of utterly needless injury and death go on piling up in the labor department.

Well, what can we do about it? First, it seems to me we must get into the minds of the legislators an altogether different conception of what a labor department should be. They must recognize that the administration of labor law is rapidly coming to be the most important function of government. We must give our labor department more dignity, a better equipment, more power.

Compare the salaries of the chief officers of the labor department in New York State with some other departments. Our Commissioner of Labor gets \$5,000. Our forest, fish and game commissioner gets \$6,000. Our superintendent of banks, our superintendent of insurance, and our commissioner of excise, each gets \$7,000. Compare also these items: the labor commissioner, himself on a salary of \$5,000, has \$2,400 to pay his counsel and \$3,000 to pay his chief statistician, while the Public Service Commission of the Second District, composed of five men on \$15,000 salaries, has \$10,000 to pay its counsel, \$6,000 to pay its secretary, and \$5,000 to pay its statistician.

So much for the heads of departments. Judging from the salaries paid, it is clear that the state does not yet recognize the relative importance of its labor department. But further than this and more important, the appropriation for the department does not allow for a sufficient number of intelligent well-trained men to do the actual work of inspection. There are in New York, fifty-two factory inspectors whose salaries range from \$1,000 to \$1,500, the majority at \$1,200. By covering seven establishments a day they usually manage to visit each factory once a year.

It is not remarkable that there is no real enforcement of the safety laws in factories. A yearly visit from an untrained \$1,200 man whose duty of inspection covers child labor, hours of work for women and minors, sanitation, ventilation and lighting, as well as the guarding of machinery, is not going to be very alarming to an employer who does not want to spend the time and money to make his workshop safe. Even if a violation is noted and an order for compliance issued by the labor department, his chance of getting into serious trouble by continuing to violate the law is pretty small, with only two employers fined in 1908, and three in 1909.

To put the labor department in a position to carry out the law's intent and really prevent unnecessary accidents by requiring safeguards wherever practicable, I think we must pay higher salaries at the top, high enough, for instance, to get a first-class counsel and a skilled engineer to devote their whole time to advising the commissioner in their respective fields. Then we must have a somewhat larger force of inspectors, more highly qualified for their task and much better paid, with salaries graded so as to tempt capable men to make factory inspection their life work. Thus, we could create a department with the wisdom and ability to do its work. But how can we give it power?

I should say, first, we must cease to make light of violations of the safety provisions in the labor law by classing them with petty offenses for which a \$20 fine is imposed. If the deliberate refusal to comply with a reasonable order of the labor commissioner, requiring the guarding of a dangerous machine is any kind of a crime, it is one that calls for a heavy penalty. It is difficult to see why a railroad should be fined \$5,000 for refusing to comply with an order of the Public Service Commission, while a factory owner is fined \$20 for refusal to comply with an order of the labor commissioner. The suggestion was made to me the other day that an increase in penalties, far from resulting in fewer convictions, would result in more convictions, and might largely do away with the practice of suspending sentence, for this reason: from the express provision for a petty fine for violations of the safety laws, the judicial mind infers that the law-makers did not consider the violation a serious one, and therefore inclines to indifference and leniency, whereas the duty of imposing a heavy penalty would tend to make the judge give real thought to the case. There seems to me to be wisdom in that suggestion. Indeed, it is worth considering whether we should not provide a penalty heavy enough to take these cases out of the lower courts entirely.

But nothing we can do to the system of fines and penalties will give the labor department power enough to put the safety laws into immediate effectual operation. I should like to see some state try this: First, give the commissioner power to make rules for safety in different trades, rules which shall have the force of statutes. And then give him expressly by statute summary power, in case his orders are not complied with, to call on the police and close up a

factory, prohibit all operation of it, until his orders in regard to safety are carried out, this summary power to be exercised, of course, only after due notice.

This sounds alarming, autocratic, too much like Germany, But would that power in a labor commissioner really be anything to fear? Would he be likely to make unwise use of it? Every employer against whom it was exercised would have his appeal to the courts as to whether the order of the commissioner was a reasonable one. By praying for a temporary injunction to restrain the commissioner from shutting up his shop, the employer could protect himself against grave loss and secure a speedy hearing. There is little doubt but that the court would give him every chance. And with this review in sight, there is not much reason to fear that the commissioner would make arbitrary use of his power.

It is this sort of a summary power we deem it necessary for a health department to have. A health officer can prohibit the occupation of a tenement when its unsanitary condition menaces the health of its tenants. Why cannot the labor commissioner prohibit the operation of a factory when its unsafe condition menaces the lives and limbs of its employees? It seems to me that laws in regard to safety, even more than laws in regard to health, demand this method of enforcement. A summary method is one which stops the danger at once and leaves the employer to commence an action in the courts to vindicate his right, instead of requiring the commissioner of labor to commence an action in the courts to vindicate his authority *while the danger continues*. Clearly the old way safeguards property at the risk of human life. The new way would safeguard life at a very little risk to property.

So far, I have imagined a complete system of accident reports, handled with transcendent intelligence by a superhuman statistician, and published for the enlightenment of a body of eager-minded public-spirited citizens. To this picture I have added that of a high-salaried, well-trained, fully-equipped labor department with power to make safety rules having the force of statutes; I have provided heavy penalties for violation of these rules to be imposed with discretion by judges aroused to the importance of their duty; and I have given the commissioner of labor summary powers to enforce compliance with his orders.

Now we come to the third essential—a new system of liability

known as *workmen's compensation*, which makes every serious accident a considerable cost to an employer and thus insures his invaluable co-operation with the labor department in promoting safety. After all the prevention of accidents in modern industry is too difficult a problem to be solved by statistics and statutes and summary powers; little can be done without the active co-operation of employers. In order to secure that co-operation, let us then quite frankly make the most of the economic incentive, establish a system of liability by which an employer can reduce his accident costs, not by hiring a more unscrupulous attorney and a more hard-hearted claim agent, but only by reducing his accidents.

Let the employer once realize that every accident, insure as he may against it, has its inevitable and definite effect upon the cost of production, and his zeal for preventing accidents will be constant. His superintendents and foremen will be made to see the effect of every accident upon their department cost sheets, and, knowing that their hope of retention or advancement in the service depends upon their efficiency in keeping as low as possible the ratio of cost to production, they will become the most aggressive fighters for accident prevention.

And the workman, while he has now, in the instinct of self-preservation, the strongest possible reason to protect himself against accident, will give far greater attention to the safety of the men about him when he finds out that carelessness brings down upon him the wrath of his foreman. To-day a man is fined or laid off or dismissed for the careless operation of valuable machinery; under workmen's compensation, he would be fined or laid off or dismissed for indifference to the safety of his fellow-workmen.

Thus, when all has been said that can be said for the importance of a wise and efficient and powerful factory inspection department, it must be admitted that the all-important thing in accident prevention is to let the economic necessity of reducing accidents enter effectively into the calculations of the "powers that be"—those who determine how often chains are to be inspected; how soon defective cars are to be retired; what signaling system is to be installed for those working in defenceless positions, whether cranes are to be stopped when repairs are made on the runway; what part of the work is to be done by ignorant foreigners; at what speed work is to be carried on; all those details of operation so intricately connected with

the management of each enterprise that they cannot be reached by law, but must depend upon the will of him who directs the enterprise. And it is to be hoped that our state legislatures will not overlook this: that in granting larger appropriations and new powers to the labor departments, they will not fail to secure the co-operation of employers in accident prevention, by the enactment of workmen's compensation laws.